

## **Data Transmission System with Reduced Power Consumption**

### **ABSTRACT OF THE DISCLOSURE**

System and method for reducing power consumption and noise in a transmission system with an asymmetrically terminated transmission line. A preferred embodiment comprises encoding data words to reduce the number of times a given state appears in a code word. The preferred embodiment comprises counting the number of times a given state appears in a data word. If the count is greater than half of the total number of bits in the data word, then the data word is inverted and a weight bit can be set to the given state. If the count is less than (or equal to) half of the total number of bits, then the data word may be unchanged and the weight bit can be set to the inverse of the given state. The code word can be generated by appending the weight bit to the data word.